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ABSTRACT

This study sought to determine the perceived, relative importance of fifteen second generation desegregation issues as viewed by randomly selected school staff participants in Mid Atlantic Appalachian Race Desegregation Assistance Center workshops. It also attempted to assess whether there were significant differing perceptions among the participants. In the analysis of the data, four statistical methods were used: (1) Friedman's Two Way Analysis of Variance, (2) the Wilcoxon Signed Rank Test, (3) the Kruskal-Wallis Test, and (4) the Follow-up Z Test. The methods varied to determine if there was a significant difference among rankings of the survey issues due to demographic variables, the direction and the magnitude of significant variables, and the degree to which groups responded differently. Recommendations based on the findings of the study are included. (Author/APM)

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WORKSHOP PARTICIPANTS' PERCEPTION RANKINGS OF SECOND GENERATION SCHOOL DESEGREGATION ISSUES ©

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OF

SECOND GENERATION SCHOOL DESEGREGATION ISSUES

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and

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INTRODUCTION

The researchers named above have been forced for many years to face and cope with the issues of segregation, desegregation and integration. Moreover, for many years, they have committed themselves to alleviating problems related to desegregation and integration. Such problems have a devastating impact on both children and adults in our society.

In regard to the topic of this session, *Continuing Issues In School Desegregation: Implications To Administrators and Researchers,* we merely mention some of the issues/problems which prevent or impede successful integration in schools. The following phenomena and issues have been highlighted by school boards members, superintendents, administrators, supervisors, teachers, counselors, parents and students in conferences and workshops conducted by Mid-Atlantic Appalachian Race Desegregation Assistance Center (MAARDAC). These school personnel have said that the following issues have created educational concerns and problems associated with first and second generation school desegregation and integration:

Deep-seated prejudice

Racism

- Institutional
- Employment opportunities
- Outspoken hate
- Verbal abuse
- Physical abuse
- Stereotyping

- Ignorance of other groups
- Distrust

Housing patterns

Economic gap between ethnic groups

Employment opportunities

Distorted information

Absence of minority professors in higher education

Paucity of role models for minority students in elementary and high schools

Inequitable racial distribution in elementary schools

Inadequate pre-planning for integration and continuous planning for integration

Lack of parental and community involvement in the educational process

Lack of commitment and support of administrators and all school personnel to quality education for all the children

Biased curriculum and teaching materials

Lack of integration in the community, e.g., church, business, civic organizations, government.

First generation educational desegregation issues involve (1) reaction to court cases and the enforcement of laws designed to assure desegregation, (2) physical mixing of bodies: pupil assignments, school personnel assignments, and (3) hostility, violence and white flight.

Second generation educational desegregation issues encompass such phenomena and conditions as (1) continuing white flight, (2) resegregation and minority-isolated groupings within schools and classrooms, and (3) disproportionate minority suspensions and other disciplinary actions. Second generation educational desegregation issues include the concept of achieving equity in schools. This study focused on fifteen issues also referred to as concerns and listed on page 5 which, if properly addressed, will assist administrators to move toward their ultimate goal which should be to achieve equity for all students in desegregated schools.

If equity leaders in American, i.e., those staffing Race Desegregation Assistance Centers (RDACs), Sex Desegregation Assistance Centers (SDACs), Equal Employment Opportunity Commission (EEOC) and other proponents of educational equity,

do not face with marked sensitivity and courage the task of eliminating the loss of people power because of conditions and practices which impede or hinder potential, America may face a human crisis of unspeakable proportion. Equity leaders must continue to press for provisions and access for all students to quality education through equal educational opportunities, regardless of race, sex, national origin, creed, or any handicapping condition.

One of the most pressing problems of our times is that of developing optimum human potential. Parents, classroom teachers, counselors, principals, administrators and educational trainers all must be committed to respond to a possible human crisis caused by loss of people power. This loss could materialize if we fail to develop all human potential no matter in whose body that potential is housed. The development of human potential to its greatest extent enhances self-fulfillment, happiness and success of individuals. The optimum development of human potential enhances the probability of solving other human and environmental problems. The trend toward exacting commitment to accountability in measurable terms from the American educational structure, coupled with the aforementioned goal to develop all human potential to an optimum extent, justifies the identification and study of desegregation issues perceived as top priority by selected participants in DAC workshops conducted in a specific geographic area.

In response to "What are priorities for the Race Desegregation Assistance Centers (RDACs) at the present time," Shirley McCune (1980), Deputy Assistant Secretary for Equal Educational Opportunity Programs, U.S. Department of Education, stated the following as priorities:

(1) building local capabilities;

(2) improving educational practices and educational management, and;

(3) institutionalizing civil rights into the policies, programs, and practices of local education agencies. Our task has moved from one of providing first-level awareness of the need for educational equity to one of developing models and technical assistance to institutionalize civil rights in education. The issues that we are dealing with comprise a process for institutional change. The responsibility of DACs is to: promote an awareness of the need for desegregation; facilitate an understanding of the behavioral aspects of segregation and the underlying socialization process

that has resulted in segregation; develop models for change; bring educational leaders to a point where they begin to articulate the need for change; guide personnel through a re-socialization process; assist local education agencies in securing financial support; train qualified human resources; and integrate a reinforcement system into each aspect of implementing sex equity.

Desegregation is one of the vehicles that we use to improve education. The real thrust of desegregation is to provide for the needs of individual students by insuring full educational access, quality educational services, and supportive reinforcement of all children, regardless of race, sex and national origin.

Statement of Problem

The delivery of services to diminish and/or eliminate segregation in classrooms and schools is a goal of RDACs. An assessment of needs as perceived by the population served by MAARDAC was paramount before effective program planning and implementation for Local Education Agencies (LEAs) in MAARDAC's service area could take place. An up-to-date needs assessment was necessary in order to obtain baseline information to be used for programmatic development addressing race desegregation priority issues.

Purpose of This Research

This study sought to determine (1) the perceived, relative importance of fifteen (15) second-generation race desegregation issues as viewed by randomly selected groups of MAARDAC workshop participants and (2) whether there were significant differing perceptions among the groups. Responses were tested for significance of differences at the .01 alpha level.

RESEARCH COMPONENT

In an effort to assess priority issues on race desegregation as perceived by public school personnel in the four-state service area, MAARDAC conducted a research study to facilitate planning and better delivery of services. The study sought to identify significant perceptual differences between and among designated categories of workshop participants regarding fifteen race desegregation

issues listed below. These issues have been designated "second generation" school desegregation issues.

The Affective Domain in the Desegregated School

School and Classroom Climate

School-Community Relations

Parental Involvement and Volunteerism in Schools

Organization and Operation of the Integrated School

Staff Development in a Changing Environment

Extra Class and Regular Class Activities

Discipline, Suspensions, Expulsions

Recruitment, Hiring, Retention, Promotion of Minority Personnel

Motivational Strategies Affecting Academic Achievement in A Diverse School Population

Proficiency Testing: Implications for Desegregated Schools and Classes

Voluntary Desegregation

Crisis Prevention and Crisis Intervention in Schools

Identifying and Eliminating Racial Stereotypes in Textbooks and Curricular Materials

Enhancing Human Relations

The above second generation desegregation issues are related to specific needs areas in which the Center (MAARDAC) is authorized to assist LEAs (see Appendix A).

The study addressed the following null hypotheses:

Friedman Two-Way Analysis of Variance

Treating the data as ordinal measurement, there is no difference in rank means among sample groups on second generation desegregation issues using demographic variables at the .01 level of significance.

$$H_o: \mu_1 = \mu_2$$

$$H_a: \mu_1 \neq \mu_2$$

Kruskal-Wallis One Way Analysis of Variance

Seeking a difference in medians among race, sex and race/sex, there is no difference in the sum of ranks within the groups per second generation desegregation issues at the .01 level of significance.

$$H_o: \mu_1 = \mu_2 = \mu_3$$

$$H_a: \mu_1 \neq \mu_2 \neq \mu_3$$

Wilcoxon Matched-Pairs Ranked Sign Test

Using matched pairs there is no difference in the distribution of the variables between paired observations per desegregation issue at the .01 level of significance.

H_o: $\mu_1 = \mu_2$
$\mu_1 = \mu_3$
$\mu_2 = \mu_3$

H_a: $\mu_1 = \mu_2$
$\mu_1 = \mu_3$
$\mu_2 = \mu_3$

Follow-up Z Test

Using multiple companions among groups, there is no significant difference in the mean ranks of the seven desegregation issues at the .01 level of significance.

H_o: $R_i = R_j$

H_a: $R_i \neq R_j$

As a part of each workshop registration process, all participants included in the survey were required to complete a statistical data sheet (see Appendix B). The purpose of the data sheet was two-fold: (1) to obtain demographic information about the participants and (2) to have the participants prioritize the fifteen above listed issues in their perceived order of importance.

At the beginning of each workshop when participants were requested to complete the data sheets, the investigator or her designee displayed a transparency of the statistical data sheet and did the following:

(1) Stated purpose of gathering the data

(2) Defined terminology used in the instrument (i.e., urban, rural, suburban, mixed, prioritize, Second Generation Desegregation Concerns)

(3) Responded to questions related to the survey instrument

(4) Demonstrated how to complete the data sheet depending on the apparent sophistication level of the participants in attendance at the particular workshop. Ample time was provided so that the data sheets could be filled out completely. Participants were instructed to review all fifteen issues before prioritizing them. Issues were prioritized from one to fifteen with the issue perceived as most important being number one and the other issues

numbered consecutively in their perceived order of importance. Participants completed the data sheets before the workshop began, and all forms were collected prior to the actual start of the workshop. Participants were asked not to place their names on the data sheets, thus insuring their anonymity.

For consistency purposes, only workshops conducted during the 1979-80 project term were selected for the sample pool used in this study. Likewise, only those workshops having minimum attendance of twenty-five were included in the pool. In order to obtain a manageable sample, twenty workshop settings were randomly selected from a total of 325 workshops held during 1979-80. This selection procedure yielded a total of 998 respondents who are assumed to be generally representative of the total population of workshop/conference/retreat participants in Kentucky, Tennessee, North Carolina and South Carolina.*

Analysis of Data

In order to determine whether or not differences were significant among the perceptions of importance attached to the fifteen issues using demographic variables to identify and compare groups, the alpha level was set at .01 by the researchers.

In the analysis of the data collected, four statistical methods were utilized: i.e., the Friedman's Two-Way Analysis of Variance, the Wilcoxon Signed Rank Test, the Kruskal-Wallis Test, and the Follow-up Z Test. The Friedman Two-Way Analysis of Variance was used to determine if there was a significant difference among the rankings of the means of the survey issues based on the demographic variables including race, sex, position, professional experience (years taught), age, type of school district, and state.

*It needs to be noted here that during the collection of the data, workshops and/or conferences were held in the States of Tennessee and Kentucky with a small percentage of respondents in attendance being from North Carolina and South Carolina. For many years MAARDAC's service area was Tennessee and Kentucky. When this data was collected MAARDAC's service area had been expanded, for only two years, to include North Carolina and South Carolina.

After the Friedman test determined which demographic variables were significantly different among groups, only those significant variables were involved in the remaining statistical tests. In an effort to determine the direction and/or magnitude of difference on significant variables identified by the Friedman test, the Kruskal-Wallis test (which uses three or more groups) and the Wilcoxon-Signed Rank test (which uses pairs) were employed. Both analyses were utilized to identify specific desegregation issues per significant demographic variable.

In order to determine the degree to which the groups responded differently per significant survey issues, a Follow-up Z test was used with the alpha level remaining consistent as in the previous analyses. This test showed which specific sample groups differed significantly in their rankings of desegregation issues.

Response Modality

Respondents rank-ordered the fifteen second-generation desegregation issues. The rank-orders provided the data for analysis, using key demographic data as variables.

ANALYSIS AND INTERPRETATION OF THE DATA

Demographic Information

The respondents in the sample consisted of 998 persons from specified position categories, viz: school board, superintendent, assistant superintendent, director, principal, assistant principal, supervisor, State department representative, counselor, teacher, librarian, parent, coach, student, teacher aide and/or other; who were currently employed in the public school system and had participated in a MAARDAC workshop and/or conference. The major features of the sample's demographic breakdown are apparent, as illustrated in the preceding histograms (Hayslett, 1968). The data were submitted by the respondents and all descriptors used on the survey form are included. The sample was randomly selected to provide

a manageable yet representative and comprehensive sample group. However, the generalizability of the findings can only be made to identical populations as described in this study (Knight, 1977). The sample is so constituted as to permit inference to be drawn concerning the populations served by MAARDAC. Understandably, the sample is not necessarily representative of all unique settings existing within MAARDAC's service area.

On the basis of the data supplied by the respondents, 79 percent, (788) were from Tennessee, 20 percent (199) were from Kentucky, and less than 1 percent was from North Carolina and South Carolina (see Figure 1). It should be noted that even though there were more representatives from Tennessee than elsewhere this unequal distribution of participants in states was not controlled by the researcher because of the randomization process.

A breakdown by sex indicated that there were 26 percent (259) males, and 74 percent (739) females (see Figure 2).

A breakdown by race indicated that 57 percent (568) identified their race as white, 42 percent (419) identified their race as black and less than 1 percent classified themselves of another race (see Figure 3).

In reviewing the types of position titles held, it was found that 59 percent (588) of the respondents were teachers and 10 percent (99) were parents. Seven percent (69) of the respondents were principals; the remaining 24 percent (272) were represented under the titles of school board, superintendent, assistant superintendent, director, assistant principal, supervisor, State department representative, counselor, librarian, coach, student, teacher aide and others (see Figure 4).

In summarizing the background data of the sample, it can be seen that (1) the majority of the respondents were teachers; (2) the State of Tennessee had the largest number of respondents with very little representation from North Carolina and South Carolina; (3) females dominated the sample size almost one to three;

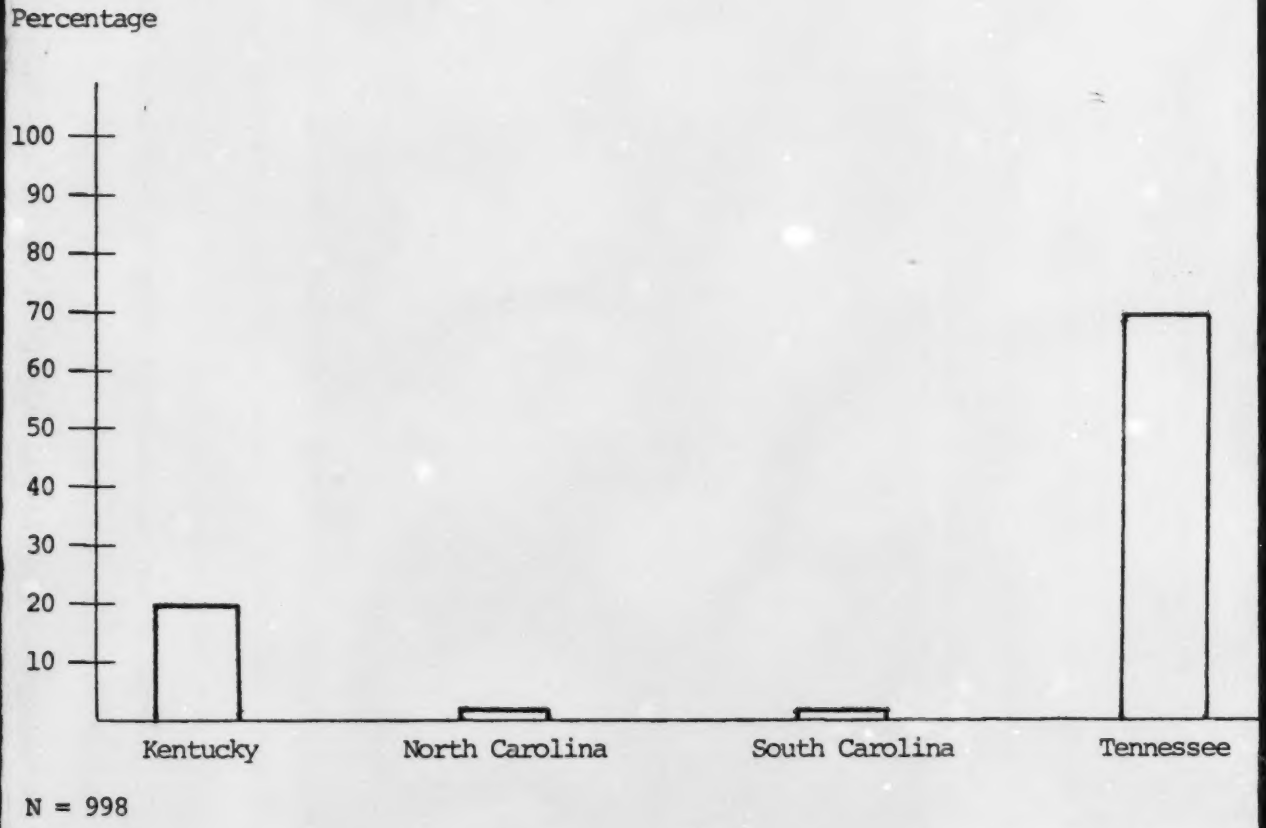
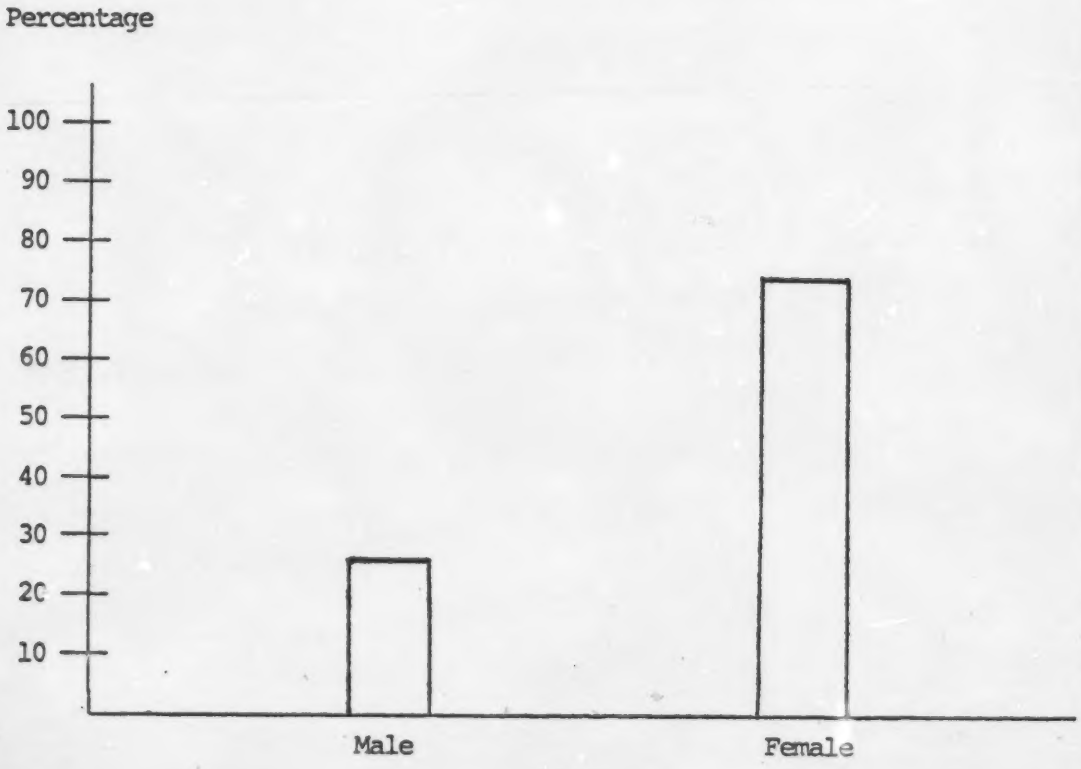
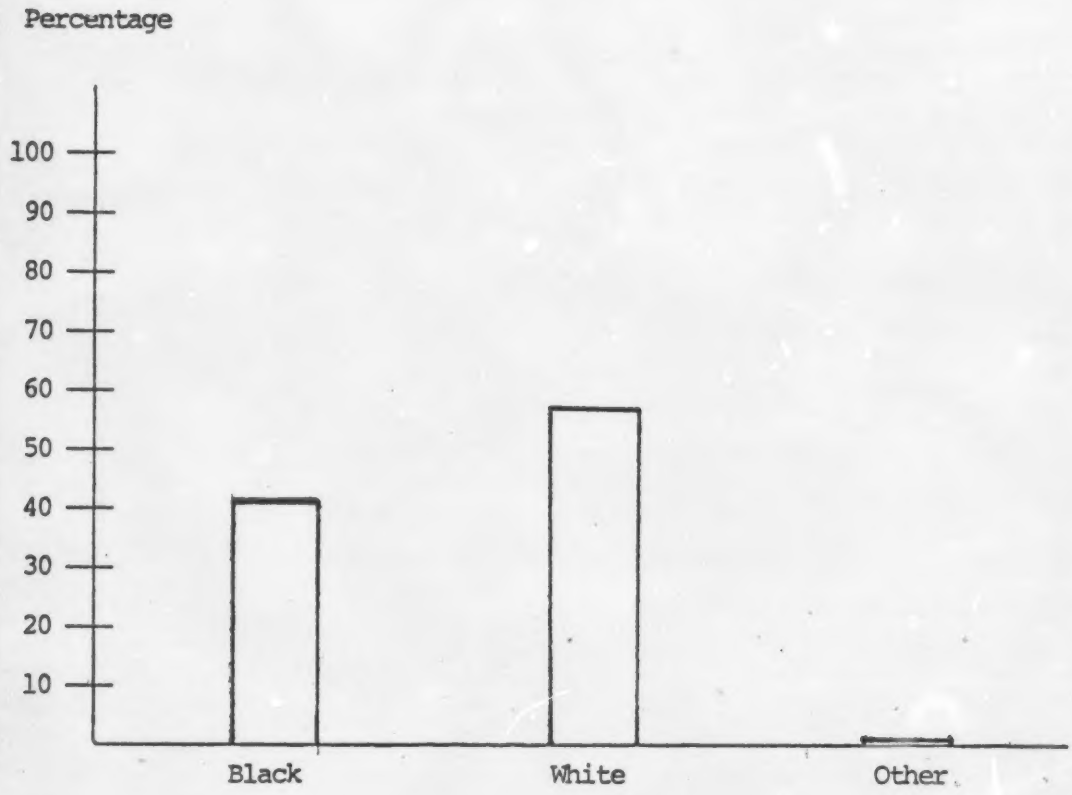


Figure 1: Distribution of Demographic Data By State



N = 998

Figure 2: Distribution of Demographic Data by Sex



N = 998

Figure 3: Distribution of Demographic Data By Race

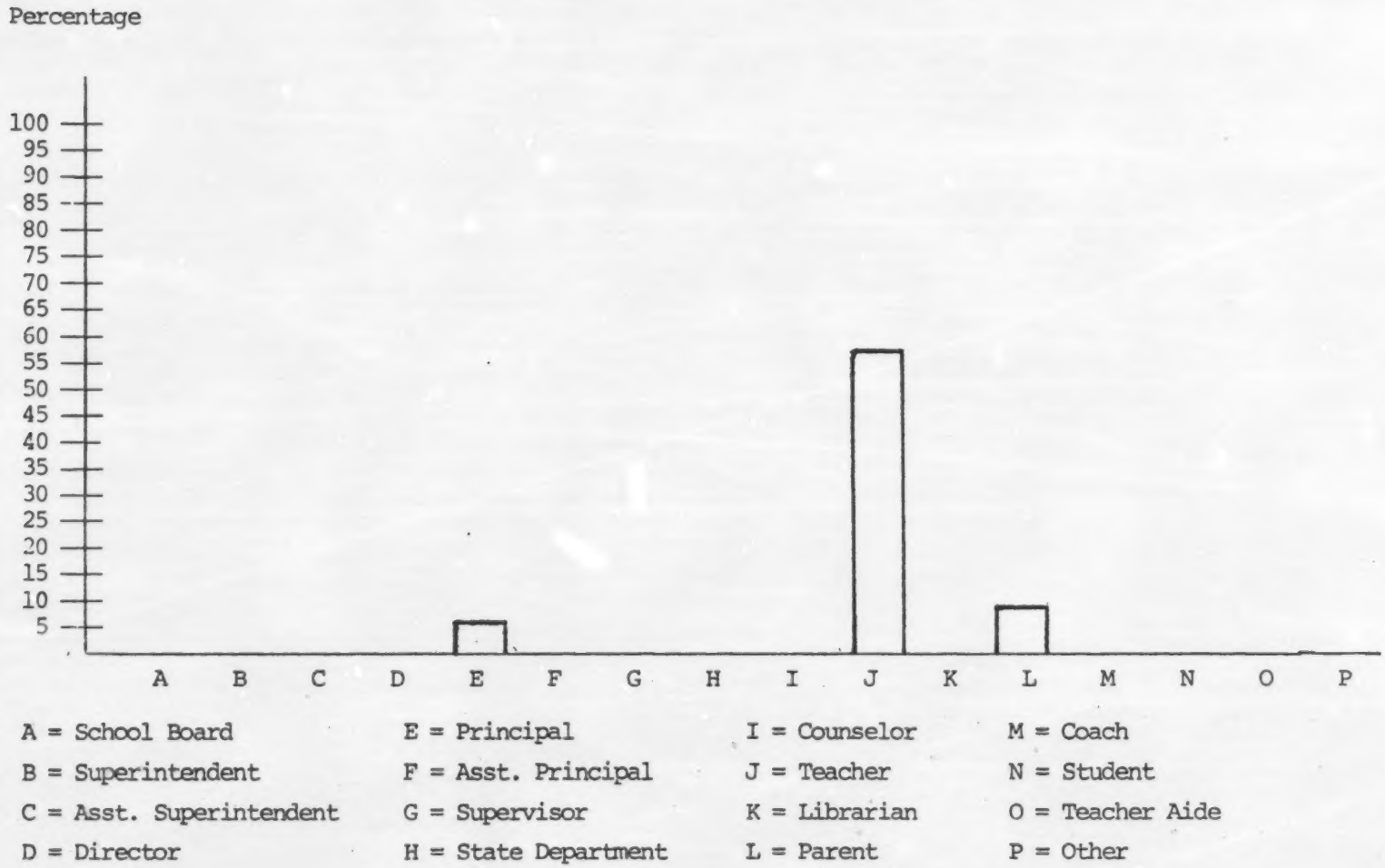


Figure 4: Distribution of Demographic Data By Position

*Note: Positions A, B, C, D, F, G, H, I, K, M, N, O and P were each less than 1 percent.

and (4) racially the sample was fairly even in its representation, i.e., no one race greatly exceeded the other in participant count.

The Friedman Two-Way Analysis of Variance

Since the researcher was interested in determining whether there was a significant difference in race desegregation issues between the sample, the respondents were asked to rank survey issues in order of importance. Thus, computational formulae for the repeated measurements design may be applied to rank data of this sort. Therefore, a Chi square statistic is employed to test the hypothesis of no difference between groups in the sum of ranks. Use of the Chi square statistic is called the Friedman test. In addition, an index to the extent to which groups agree in their rankings is given by Kendall's Coefficient of Concordance (Siegel, 1956). In short, the Friedman test determines whether the rank totals (R_j) differ significantly.

The 998 respondents ranked fifteen desegregation concerns as presented in Table 1 by sex and sex/race. In order of priority by sex, the respondents perceive *School and Classroom Climate* as their first concern. Respectively other concerns (in their priority order) were *School-Community Relations; Parental Involvement and Volunteerism in Schools; Enhancing Human Relations;* with concern number eight, *Discipline, Suspensions, Expulsions,* being ranked fifth. Desegregation concern number six, *Staff Development in a Changing Environment,* and concern number ten, *Motivational Strategies Affecting Academic ...,* were tied for sixth rank place of importance. Interestingly, concern number twelve, *Voluntary Desegregation,* was the least concern of importance among the fifteen.

TABLE 1

RANKING OF THE FIFTEEN CONCERNS/ISSUES
FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE

CONCERN/ISSUE	RANK SUMS	PRIORITY BY SEX	RANK SUMS	PRIORITY BY SEX/RACE
1. The Affective Domain in the . . .	15.0	8	40.0	8
2. School and Classroom Climate	2.0	1	18.0	2
3. School-Community Relations	4.0	2	12.0	1
4. Parental Involvement and Volunteerism	6.0	3	24.0	4
5. Organization and Operation of the . . .	18.0	9	44.0	9
6. Staff Development in the Changing . . .	13.0	6	30.0	5
7. Extra Class and Regular Class . . .	21.0	10	57.0	13
8. Discipline, Suspensions, Expulsions	11.0	5	33.5	7
9. Recruitment, Hiring, Retention. . .	23.0	11	56.0	11
10. Motivational Strategies Affecting . . .	13.0	6	32.0	6
11. Proficiency Testing: Implications for . .	23.0	11	56.0	11
12. Voluntary Desegregation	30.0	15	66.5	15
13. Crisis Prevention and Crisis. . .	28.0	14	60.0	14
14. Identifying and Eliminating Racial. . .	25.0	13	51.0	10
15. Enhancing Human Relations	8.0	4	20.0	3

As seen in Table 2, when comparing differences in rank means between sample groups via demographic variables, a significant difference did exist, i.e., two of eight demographic variables, sex and sex/race, produced a significant difference, therefore rejecting the null hypothesis.

TABLE 2

FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE
BETWEEN SAMPLE GROUPS ON DEMOGRAPHIC VARIABLE

Demographic Variable	Desegregation Issue	Level of Significance	Kendall Coefficient of Concordance
Sex	1 - 15	0.01	0.67857
Race	1 - 15	0.08	0.1726
Sex/Race	1 - 15	0.0001	0.59578
Position	1 - 15	0.0000	0.67072
Yrs. Teaching	1 - 15	0.0000	0.93834
Yrs. Admin.	1 - 15	0.0000	0.90794
Age	1 - 15	0.0000	0.87423
Dist. Types	1 - 15	0.0000	0.86507

When viewing the findings of the Friedman analysis, it can be seen based on sex rank means between sample groups, that desegregation issue number two, *School and Classroom Climate,* was perceived as the most important issue (see Table 3). Desegregation issue number three, *School-Community Relations,* was the second most important issue, and desegregation issue number four, *Parental Involvement and Volunteerism in Schools,* was the third issue of concern among the fifteen provided for ranking.

A histogram presenting the mean rankings between groups by sex (see Figure 5) is provided which outlines a visual overview of the rankings as identified in Table 3. As can be seen, the only desegregation issue in which both sexes agreed absolutely--based on ranking value--was concern number eleven, *Proficiency Testing: Implications for Desegregated Schools and Classes.* However, further analysis was conducted and will be explained identifying the degree of difference per desegregation issue between sample groups.

TABLE 3

FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE
BETWEEN SEXES

Variable Group	Level of Significance (α)	Kendall Coefficient of Concordance	Mean ($\bar{X}$)	Rank Sum
1	0.0171	0.97857	7.2	15.0
2			4.1 - (1)	2.0
3			5.1 - (2)	4.0
4			6.1 - (3)	6.0
5			7.7	18.0
6			7.2	13.0
7			9.4	21.0
8			7.0	11.0
9			9.6	23.0
10			7.1	13.0
11			9.6	23.0
12			11.1	30.0
13			10.6	28.0
14			10.2	25.0
15			6.3	8.0

N = Males - 263
Females - 734
Missing - 1

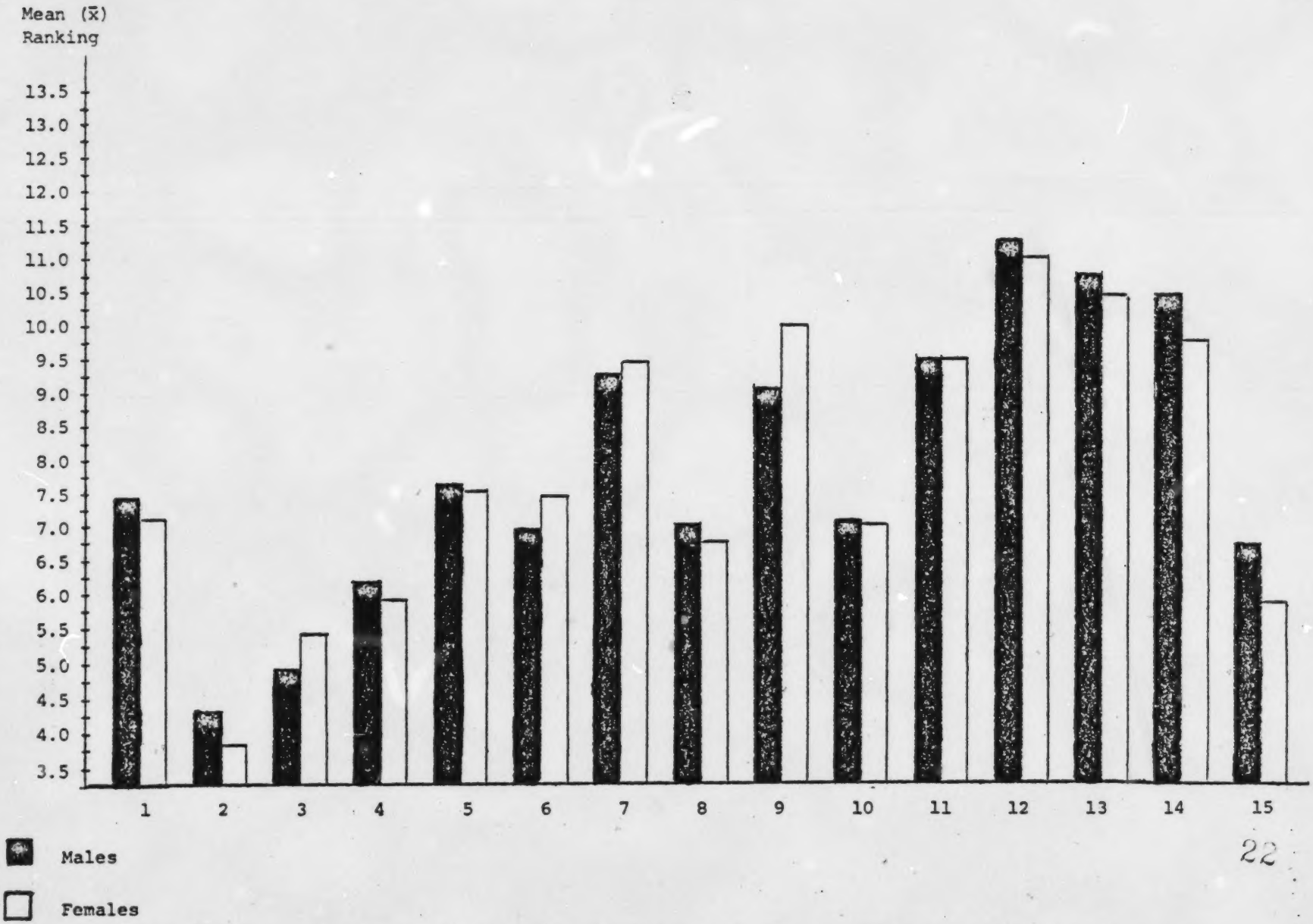


Figure 5: FREQUENCY DISTRIBUTION OF MEAN RANKINGS BETWEEN SEX PER RACE DESEGREGATION SURVEY ISSUE

Table 4 shows the rank means of the participants by sex/race. The differences were analyzed between black males, white males, black females and white females. Members of this smaller aggregate group identified desegregation issue number three, *School-Community Relations*, as their first priority of concern. Desegregation issue number fifteen, *Enhancing Human Relations*, was their second concern of importance and desegregation issue number two, *School and Classroom Climate*, was their third issue of importance of the fifteen ranked.

A visual illustration of differences within the variable sex/race is presented in Figure 6. However, significant differences per survey issue will be identified and presented through further analysis since the Friedman analysis does not provide that specific information.

In summarizing the Friedman analysis, only two of the eight variables under demographic variable were identified, namely sex and sex/race as having statistically significant differences at the .01 alpha level or below. Thus, this analysis basically served as a screening device for zeroing in on those groups among which a significant difference did exist. The next two statistical analyses, the Kruskal-Wallis One Way Analysis of Variance and the Wilcoxon Matched-Pairs Ranked Signs Test, were computed to identify which desegregation issues presented significant differences via sex and sex/race.

The Wilcoxon Matched-Pairs Ranked Signs Test

and

Kruskal-Wallis One Way Analysis of Variance

Following the Friedman analysis, the Wilcoxon test was utilized to provide information as to the direction of the differences within pairs (Seigel, 1956). The Wilcoxon gives more weight to a pair which shows a large difference between the conditions than to a pair which shows a small difference. In short, although Figures 5 and 6 provide visual differences between the groups, the Wilcoxon shows which differences are statistically significant. Likewise, the Kruskal-Wallis

TABLE 4

FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE
BY SEX/RACE

Variable Group Concern No.	Level of Significance (α)	Kendall Coefficient of Concordance	Mean ($\bar{X}$)	Rank Sum
1	0.0001	0.59578	8.5	40.0
2			5.9 - (3)	18.0
3			4.9 - (1)	12.0
4			6.9	24.0
5			8.3	44.0
6			6.4	30.0
7			9.9	57.0
8			7.2	33.5
9			9.4	56.0
10			6.7	32.0
11			9.1	56.0
12			10.5	66.5
13			9.8	60.0
14			8.4	51.0
15			5.3 - (2)	20.0

N = White Male - 172
Black Male - 91
White Female - 398
Black Female - 335
Other Female - 1

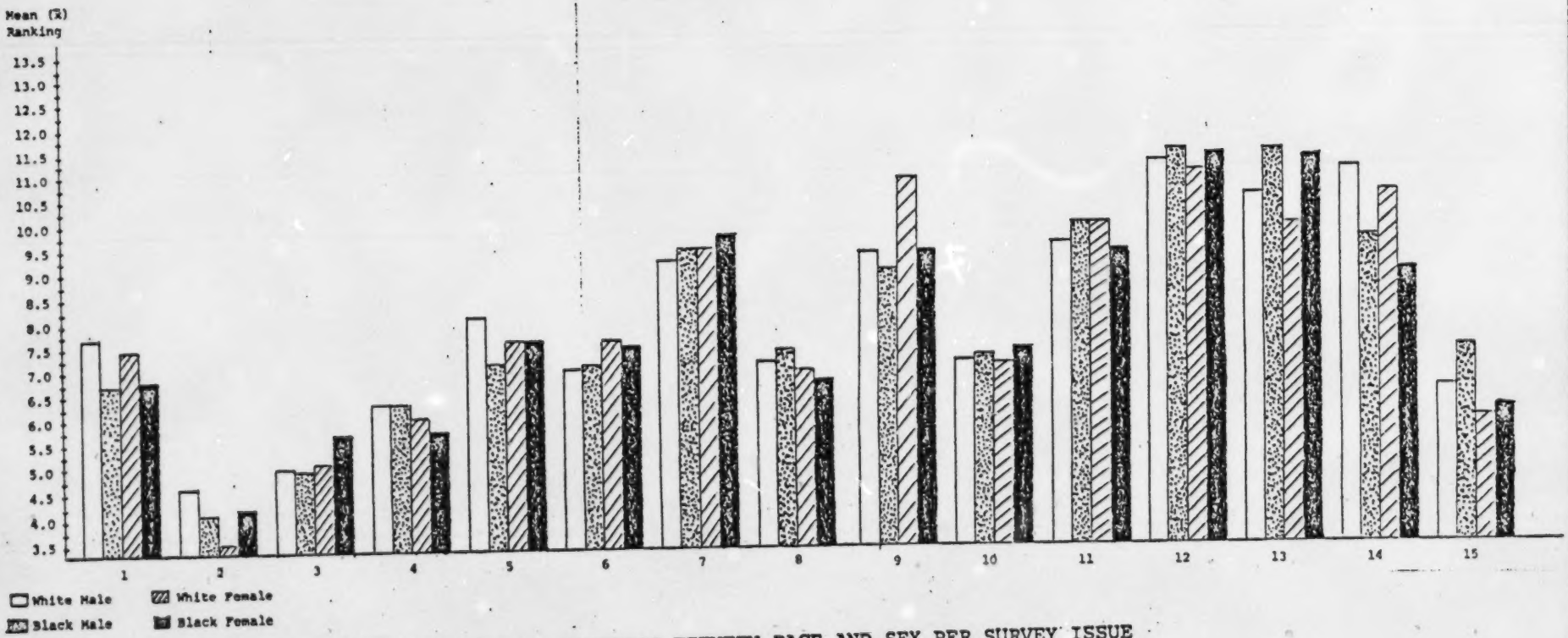


Figure 6: FREQUENCY DISTRIBUTION OF MEAN RANKINGS BETWEEN RACE AND SEX PER SURVEY ISSUE

analysis will also identify differences per desegregation issue. However, since Wilcoxon only uses pairs, the Kruskal-Wallis was necessary because it employs comparisons among three or more groups (Gibbons, 1976). (It should be noted again that both analyses are appropriate for ordinal measurements.)

As seen in Table 5, three of the fifteen desegregation issues produced a significant difference between males and females. Desegregation concern number two, *School and Classroom Climate,* was significant at the .003 level; concern number nine, *Recruitment, Hiring, Retention, Promotion of Minority Personnel,* was significant at .001; and concern number fifteen, *Enhancing Human Relations,* was significant at .007.

TABLE 5

WILCOXON SCORES (RANK SUMS)
FOR SEX

Desegregation Issue	N	Mean ($\bar{X}$)	Prob>F
Concern 2	263 731	4.48 3.85	0.0034
Concern 9	259 725	9.20 10.17	0.0011
Concern 15	259 730	6.80 5.95	0.0070

When comparing the sample groups' responses to the fifteen desegregation concerns via sex/race (i.e., black males, white males, black females, white females) using the Wilcoxon Test, five of the fifteen concerns were significant (see Table 6). In agreement with the findings in Table 4, concern number two, *School and Classroom Climate,* was significant at the .0001 level. Concern number three, *School-Community Relations,* was significant at the .009 level. In contrast, concern number three was not significant under the category of sex.

Concern number nine, *Recruitment, Hiring, Retention, Promotion of Minority Personnel,* number thirteen, *Crisis Intervention in Schools,* and concern number fourteen, *Identifying and Eliminating Racial Stereotyping in Textbooks and Curricular Materials,* were each significant at the .0001 level. Concerns number thirteen and fourteen were not identified as significant between sample groups under the category of sex as they were under the category sex/race.

TABLE 6

WILCOXON SCORES (RANK SUMS)
FOR SEX/RACE

Desegregation Issue	N	Mean ($\bar{X}$)	Prob>F
Concern 2	172	4.63	.0001
	397	3.50	
	91	4.19	
	334	4.26	
Concern 3	172	4.98	.009
	398	5.10	
	91	4.82	
	335	5.77	
Concern 9	170	9.35	.0001
	396	10.86	
	89	8.92	
	329	9.33	
Concern 13	168	10.51	.0001
	395	9.87	
	90	11.46	
	331	11.36	
Concern 14	168	10.96	.0001
	397	10.63	
	90	9.66	
	332	8.97	

Because the demographic variable sex/race produced a significant difference among survey items, the variable race was computed also. Under the category of race, four of the fifteen desegregation concerns yielded a significant difference between groups (see Table 7). Concern number one, *The Affective Domain in the*

Desegregated School, was significant at the .008 level. This concern was not identified under the two preceding categories of sex or sex/race. Concern number nine, *Recruitment, Hiring, Retention, Promotion of Minority Personnel,* number thirteen, *Crisis Prevention and Crisis Intervention in Schools,* and concern number fourteen, *Identifying and Eliminating Racial Stereotyping in Textbooks and Curricular Materials,* were identified as significant under previous categories and found to be significant at the .001 level.

TABLE 7

WILCOXON SCORES (RANK SUMS) FOR RACE

Desegregation Issue	N	Mean ($\bar{X}$)	Prob>F
Concern 1	568 422	7.52 6.81	.008
Concern 9	566 418	10.41 9.24	.0001
Concern 13	563 421	10.06 11.38	.0001
Concern 14	565 422	10.73 9.12	.0001

To summarize, of the forty-five comparisons run using the Wilcoxon Matched-Pairs, a total of seven different desegregation issues were identified as significant. Concern number nine was the only desegregation issue that was consistently significant under each of the three demographic categories. Therefore, the null hypothesis was rejected.

Unlike the Wilcoxon test, the Kruskal-Wallis test only identified five desegregation issues as significant among sample groups. When viewing the demographic variable sex, the Kruskal-Wallis did not reveal a significant difference on concern number fifteen, *Enhancing Human Relations,* as did the Wilcoxon test (see Table 8). However, concerns number two and nine were consistent with the findings from the Wilcoxon.

TABLE 8

KRUSKAL - WALLIS 1-WAY ANOVA
BY SEX

Desegregation Issue	Group	N	Rank Sums	Chi Square
Concern 2	1	263	538.37	.007
	2	731	482.80	
Concern 9	1	259	444.41	.001
	2	725	509.68	

Concern number three, *School-Community Relations,* under the category of sex/race was not significant using analysis from the Kruskal-Wallis (see Table 9) as found in the Wilcoxon (see Table 6). However, it should be noted that concerns number two, nine, thirteen and fourteen were significant in both tests and each yielded a .0001 level of significance.

TABLE 9

KRUSKAL - WALLIS 1-WAY ANOVA
BY SEX/RACE

Desegregation Issue	Group	N	Rank Sums	Chi Square
Concern 2	1	172	548.42	.0001
	2	397	446.25	
	3	91	519.37	
	4	334	526.24	
Concern 9	1	170	458.27	.0001
	2	396	555.69	
	3	89	417.94	
	4	328	454.30	
Concern 13	1	168	490.44	.0001
	2	395	434.49	
	3	90	551.65	
	4	331	546.69	
Concern 14	1	168	559.01	.0001
	2	397	539.06	
	3	90	465.67	
	4	332	414.90	

1 = white males
2 = white females
3 = black males
4 = black females

Using the demographic variable race, five desegregation issues produced a significant difference in group means among the sample. Concern number two, *School and Classroom Climate*, was significant at the .009 level through the Kruskal-Wallis test (see Table 10). However, this issue was not identified in the Wilcoxon test (see Table 7).

TABLE 10

KRUSKAL - WALLIS 1-WAY ANOVA
BY RACE

Desegregation Issue	Group	N	Mean Score	Chi Square
Concern 1	1 (White) 2 (Black)	568 422	517.41 466.01	.005
Concern 2	1 (White) 2 (Black)	569 425	477.13 524.77	.009
Concern 9	1 (White) 2 (Black)	566 418	526.43 446.56	.0001
Concern 13	1 (White) 2 (Black)	563 421	451.18 547.75	.0001
Concern 14	1 (White) 2 (Black)	565 442	544.99 425.74	.0001

Rejection of the null hypothesis for both the Wilcoxon and Kruskal-Wallis tests implies that there was a difference between the groups, viz: sex-male and females; sex/race - black males, white males, black females and white females; and race - black and white. However, the question "Which pairs of groups differ significantly from each other?" remains unanswered. In order to answer this question, the final statistical technique known as multiple comparisons and denoted by the critical z value will be presented in the following section.

Follow-up Z Test

Of the six available comparisons between sample groups per desegregation issue which were identified as being significant in the previous analysis (total number of comparative groups yielded forty-two), only ten were significant at the .01 level or below. Only ten group comparisons responded significantly different on five desegregation issues.

As seen in Table 11, concern number two, *School and Classroom Climate*, produced two group comparisons that differed significantly. White male responses to *School and Classroom Climate* yielded a significant difference at the .0009 level when compared to white females. Likewise, on the same desegregation issue, black females versus white females differed significantly at the .0001 level. Of the other four available group comparisons for concern number two, there did not exist any significant difference of responses between sample groups. For the visual illustration of these differences on concern number two, the reader can refer to Figure 6 as presented on page 21, which now makes it clear as to between which specific groups the significant difference exists.

TABLE 11

CRITICAL Z VALUES
ON SIGNIFICANT DESEGREGATION ISSUES

Desegregation Issues	Group Contrast	Z	Prob
Concern 2	1=1 J=2	3.89	<.01
	1=2 J=4	3.75	<.01
Concern 9	1=1 J=2	3.73	<.01
	1=2 J=3	4.13	<.01
	1=2 J=4	4.78	<.01
Concern 13	1=2 J=3	3.52	<.01
	1=2 J=4	5.29	<.01
Concern 14	1=1 J=4	5.33	<.01
	1=2 J=4	5.85	<.01
Concern 15	1=2 J=3	2.65	<.01

1 = white males
2 = white females
3 = black males
4 = black females

Group responses to concern nine, *Recruitment, Hiring, Retention, Promotion of Minority Personnel,* yielded a significant difference between white males and white females at the .01 level or less, white females and black males at the .01 level or less, and between white females and black females at the .01 level or less.

On desegregation issue number thirteen, *Crisis Prevention and Crisis Intervention in Schools,* groups differed significantly between white females versus black males at the .01 level or less and between white females and black females at the .01 level or less.

Concern fourteen, *Identifying and Eliminating Racial Stereotyping in Textbooks and Curricular Materials,* yielded two significant group comparisons. White males versus black females differed significantly at the .01 level or less. Likewise, black females also differed significantly in responses with white females at the .01 level or less.

Enhancing Human Relations, concern number fifteen, only yielded one significant difference between group comparisons--white females versus black males differed at the .01 level or less.

In summary, a significant difference did exist between sample groups when using multiple comparison; therefore, the null hypothesis was rejected. An interesting consistency to be noted during this analysis was that on each of the five desegregation issues, white female comparisons differed significantly on each item. Likewise, though the Wilcoxon and Kruskal-Wallis Tests both identified concern number one, *The Affective Domain in the Desegregated School,* as being significant, the Z test did not show a significant difference when comparing group rankings. Also, concern number three, *School-Community Relations,* which was identified under the Wilcoxon Test was not shown to be significant under the analysis for the Z test.

Again, for clarity purposes, <u>firstly</u> the Friedman Test identified which demographic variables were significant. Of the eight variables used, two, i.e., sex and sex/race, were significant at the .01 level or below. No concern was given to

desegregation issues in this analysis. Secondly, the Wilcoxon and Kruskal-Wallis tests were run to identify which desegregation issues under the two variables (sex and sex/race) were significant. Of the forty-five factors analyzed, seven were found to have a significant difference. The variable race was used under these two tests as a single variable because it was found to be significant as double variable with sex. And lastly, the Follow-up Z Test was employed to determine the degree to which sample groups differed on the seven desegregation issues. Of the seven identified through the Wilcoxon and Kruskal-Wallis, only five desegregation issues produced significant different responses between sample groups. In short, each statistical test complemented and overlapped the next and the alpha level (.01) remained consistent for each test.

SUMMARY, DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

In focusing on the primary topic of this session, *Continuing Issues in School Desegregation: Implications to Administrators and Researchers,* this section will present the conclusions, implications and recommendations based on the findings. Each section will begin with the initial hypothesis which gave direction to the analysis of the data.

HYPOTHESIS #1

Using demographic variables, there is no significant difference in rank means between sample groups on desegregation issues at the .01 level.

$$H_o: \quad \mu_1 = \mu_2$$

$$H_a: \quad \mu_1 \neq \mu_2$$

The findings in this study as reported under the analysis of data for the Friedman Two-Way Analysis of Variance rejected the null hypothesis.

Findings

- The findings indicated that a significant difference did exist between sample groups when considering the sex of the respondents and the sex/race of the respondents. Race by itself did not produce a significant difference in rank means, nor did the respondents' position, years of experience, age, type of district or state residence.

- As listed below under significant demographic variables, sex and sex/race, sample groups by sex overall ranked desegregation issue number two, *School and Classroom Climate*, as the major priority. The second priority was *School-Community Relations*. By sex/race the sample groups reversed their number one and two priority rankings.

In a descending order the respondents by sex ranked in their perceptions of importance the fifteen desegregation issues thusly:

Rank	Issue/Concerns No.
1 - *School and Classroom Climate*	2
2 - *School-Community Relations*	3
3 - *Parental Involvement and Volunteerism. . .*	4
4 - *Enhancing Human Relations*	15
5 - *Discipline, Suspensions, Expulsions*	8
6½- *Staff Development in a Changing . . .*	6
6½- *Motivation Strategies Affecting . . .*	10
8 - *The Affective Domain in the . . .*	1
9 - *Organization and Operation of the . . .*	5
10 - *Extra Class and Regular Class*	7
11½- *Recruitment, Hiring, Retention*	9
11½- *Proficiency Testing: Implications for . . .*	11
13 - *Identifying and Eliminating Racial . . .*	14
14 - *Crisis Prevention and Crisis . . .*	13
15 - *Voluntary Desegregation*	12

In a descending order the respondents by sex/race ranked in their perception of importance the fifteen desegregation issues thusly:

Rank	Issue/Concerns No.
1 - *School-Community Relations*	3
2 - *School and Classroom Climate*	2
3 - *Enhancing Human Relations*	15
4 - *Parental Involvement and Volunteerism*	4
5 - *Staff Development in the Changing . . .*	6
6 - *Motivational Strategies Affecting . . .*	10
7 - *Discipline, Suspension, Expulsions*	8
8 - *The Affective Domain in the . . .*	1
9 - *Organization and Operating of the*	5
10 - *Identifying and Eliminating Racial . . .*	14
11½- *Proficiency Testing: Implications . . .*	11
11½- *Recruitment, Hiring, Retention*	9
13 - *Extra Class and Regular Class . . .*	7
14 - *Crisis Prevention and Crisis . . .*	13
15 - *Voluntary Desegregation . . .*	12

Conclusions/Implications

Based on the findings derived from the data collected, the following implications are presented as they relate to administrators and researchers concerned with continuing issues in school desegregation:

- Since only sex and sex/race produced a significant difference between sample groups, this finding indicates that personal concerns are important factors. That is, the other demographic variables -- position, years taught, years as an administrator, age, district type and state -- are variables in which people may or must change. For example, their position could change; the years of service increases and/or comes to a complete halt; age increases; and location, such as school district type and state, could change. However, sex is a permanent gender one has to live with for life. Likewise, one's race does not change. This implies that when addressing such a sensitive issue as desegregation, audiences typically respond from a very personal perspective.

- Perceptions of *School and Classroom Climate* as the first priority issue seems to imply that perhaps administrators and other school personnel are not doing all that is possible to create an environment which would assure equitable and productive surroundings for both teachers and students. If this were already being done, then the sample probably would not have identified this as a number one concern.

- *School and Classroom Climate* as a priority by the sample could also imply that this concern is not effectively or appropriately dealt with in local school systems.

- Interestingly, race did not produce a significant difference among the demographic variables. This seems to imply a degree of agreement in responses on issues as related to the desegregated setting. Perhaps when preparing workshops, inservice, etc., one should not focus so much on the issue of race but rather, focus upon factors that would produce a healthy environment in which learning can take place so that ALL children could excel to their maximum potential.

HYPOTHESES #2 and #3

With respect to the medians among demographic variables sex, race, and sex/race, there are no significant differences between paired observations per desegregation issue.

H_o: $\mu_1 = \mu_2$ $\quad$ H_a: $\mu_1 \neq \mu_2$

$\mu_1 = \mu_3$ $\quad$ $\mu_1 \neq \mu_3$

$\mu_2 = \mu_3$ $\quad$ $\mu_2 \neq \mu_3$

There are no significant differences among rank sums within groups by sex, race, and sex/race per desegregation issue.

H_o: $\mu_1 = \mu_2 = \mu_3$

H_a: $\mu_1 = \mu_2 = \mu_3$

The findings in this study as reported under the analysis of data for both the Wilcoxon Test and Kruskal-Wallis Test rejected the null hypothesis.

Findings

The findings indicated that a significant difference did exist with respect to perceptions of seven of the fifteen desegregation issues, viz:

Concern 1 - *The Affective Domain in the Desegregated School*

Concern 2 - *School and Classroom Climate*

Concern 3 - *School-Community Relations*

Concern 9 - *Recruitment, Hiring, Retention, Promotion of Minority Personnel*

Concern 13- *Crisis Prevention and Crisis Intervention in Schools*

Concern 14- *Identifying and Eliminating Racial Stereotyping in Textbooks and Curricular Materials*

Concern 15- *Enhancing Human Relations*

- Regarding the seven desegregation issues relative to which significant differences were found, both analyses per demographic variable consistently identified concern number nine.
- Regarding the variable sex, both males and females identified concern number two as their first priority and concern number three as their second priority. In addition, both sexes ranked concern number fifteen as their fourth priority.
- Relative to the variable race, concern number three was given the first priority, and concern number two the second priority of the seven significant desegregation issues.

Implications/Conclusions

Based on the findings derived from the data collected, the following implications are presented as they relate to administrators and researchers concerned with continuing issues in school desegregation:

- LEA personnel are concerned about the school and classroom climate in a desegregated setting. School and classroom environment is not as productive and/or positive as it could be.
- Since enhancing human relations is not considered as important as maintaining a wholesome school-classroom climate OR enhancing school-community relations, school personnel apparently are more concerned about their immediate environment than the larger school and school-community setting.

- The recruitment, hiring, retention, promotion of minority personnel is a consistent concern in the desegregated setting though not a high priority. Economics and employment security are constant concerns of school personnel.

- Of the fifteen available desegregation issues, researchers and administrators need to focus close attention to those seven identified in this study.

Recommendations

Based on the findings and conclusions from these two analyses, the following recommendations are presented:

- Administrators and researchers need to place more emphasis, time, effort and monies into developing and identifying materials and resources which improve school-classroom climate in a desegregated setting.

- Rather than tokenism during the recruitment, hiring, retention and promotion of minority personnel, administrators and researchers need to identify and/or devise a system that is truly equitable in employment practices for ALL.

- School and classroom climate being a primary concern in the desegregated setting, LEA personnel need to jointly take responsibility to ensure a positive and productive atmosphere.

- Human relation activities for LEA personnel should be designed to deal with problems in a desegregated setting from a personal perspective based on factual information.

HYPOTHESIS #4

In multiple comparisons among groups, there is no significant difference in the mean ranks of the seven desegregation issues.

$$R_i = R_j$$

$$R_i \neq R_j$$

The findings from this analysis as reported under the analysis of data for the follow-up Z test rejected the null hypothesis.

Findings

- The findings indicated that a significant difference in rankings between group pairs did exist on five desegregation issues.

- Even though concern number two, *School and Classroom Climate,* was the priority desegregation issue for all groups, white females gave

a significantly higher ranking to the concern than the other sample groups.

- Though identified as significant in the previous analysis, there were no significant ranking differences among sample groups in two desegregation items: Concern One, *The Affective Domain in the Desegregated School,* and Concern Three, *School-Community Relations.*

- White females ranked issue number nine, *Recruitment, Hiring, Retention, Promotion of Minority Personnel,* as being significantly less important than did white males, black males or black females.

- Males ranked concern number nine as a tenth priority among fifteen desegregation issues whereas females ranked number nine as thirteenth in their list.

- White females ranked concern number thirteen, *Crisis Prevention and Crisis Intervention in Schools,* as having a higher priority than did white males, black males, or black females.

- On concern fourteen, *Identifying and Eliminating Racial Stereotyping in Textbooks and Curricular Materials,* black female responses when paired with white males and white females produced a significant difference.

- Minority females ranked concern number fourteen as a higher priority than white males, white females or black males.

- White females ranked concern number fifteen higher on the priority list than did white males, black males and black females.

Implications/Conclusions

Based on the findings derived from the data collected, the following implications are presented as they relate to administrators and researchers concerned with continuing issues in school desegregation:

- When identifying curriculum materials for desegregated school systems, administrators need to adamantly establish selection procedures that ensure equitable literature free of obvious racial and sexual bias.

Recommendations

Based on the implications and conclusions of this study, the following recommendations are suggested:

- When attempting to improve school and classroom climate in a desegregated situation, perhaps the subject should be approached from a personal fact-finding prospective.

- Teacher training institutions and personnel responsible for preparing teachers should include in the teacher-training curricula courses which are designed to teach future teachers about materials and strategies which clearly indicate a commitment to diminish and/or eliminate segregation and foster integration in classrooms and schools.

- Administrators, including principals, should strongly encourage all teachers to attend to and practice behavior and use curricular materials which would nurture the affective domain for every student and assure an enhancement of good human relations among all students.

- Administrators should provide for every student a school and classroom climate which motivates each student and assures him/her the opportunity to achieve optimum development.

- Persons responsible for hiring, placement and promotion of personnel in the schools should put into action a plan which provides role models for minority students in elementary and secondary schools.

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Appendix A

MAARDAC

THE MID-ATLANTIC/APPALACHIAN RACE DESEGREGATION ASSISTANCE CENTER
COLLEGE OF EDUCATION
THE UNIVERSITY OF TENNESSEE

SCHOOL DISTRICT NEEDS ASSESSMENT AND COOPERATIVE ACTION PLAN

Listed below are needs MAARDAC has been authorized to address. We would like you to check the Needs to which you want to give concentrated attention.

SERVICES	NEEDS	PARTICIPANTS
___ Conferences	___ To reduce suspensions and expulsions	___ School Board
	___ To decrease racially identifiable schools and/or classes	
___ In-Service Workshops	___ To foster and achieve congruence between the public school race desegregation process and student, parent, and community race desegregation needs and desires	___ Parents
___ Consultation	___ To identify and solve school district problems which have arisen from race desegregation	
___ Compliance Analysis	___ To encourage and increase participation of students of all races in school-related functions on an equitable and non-discriminatory basis	___ Administrators
___ Informational Update	___ To increase the number of minority group personnel in positions in which they are underrepresented, particularly in decision-making positions	
___ Problem-Solving Teams	___ To develop and use procedures to prevent discrimination on the basis of race in public school employment practices, such as hiring, assignment, promotion, transfer, termination, and payment	___ Students
	___ To develop and utilize human relations activities designed to facilitate harmony in public schools	___ Teachers
___ Data Collection	___ To identify racial stereotypes in textbooks and other curricular materials and develop methods of countering their effects on students	
___ Dissemination of Materials	___ To assist with the modification and/or revision of desegregation plans as well as help with their implementation	___ Counselors
___ Curricular Materials	___ To identify additional resources capable of assisting in solving problems occasioned by race desegregation	___ Noncertificated Personnel
	___ To assist in meeting other civil rights-related requirements of the Emergency School Aid Act (sec. 706(d) of the Pub. L. 92-318, as amended)	
___ Other (Please Specify.)	___ Other (Please specify.)	___ Other (Please Specify.)

SCHOOL SYSTEM _____
STATE

_____
Superintendent's Signature

Appendix B

MAARDAC
MID-ATLANTIC/APPALACHIAN RACE DESEGREGATION ASSISTANCE CENTER

STATISTICAL DATA

The following information is needed for our reports on service to the federal government. Please fill out each line.

RACE: Black _____ White _____ Other _____

SEX: Female _____ Male _____

STATE: Kentucky _____ North Carolina _____ South Carolina _____ Tennessee _____.

Please check one in each column:

POSITION		PROFESSIONAL EXPERIENCES Years Taught	PROFESSIONAL EXPERIENCES Years as an Administrator	AGE	TYPE OF SCHOOL DISTRICT YOU REPRESENT
School Board Member	_____				
Superintendent	_____				
Assistant Superintendent	_____	_____ 1- 3	_____ 1- 3	_____ Below 18	_____ Urban
Director	_____	_____ 4- 6	_____ 4- 6	_____ 18-20	_____ Rural
Principal	_____	_____ 7-10	_____ 7-10	_____ 21-30	_____ Suburban
Assistant Principal	_____	_____ 11-15	_____ 11-15	_____ 31-40	_____ Mixed
Supervisor	_____	_____ 16-25	_____ 16-25	_____ 41-50	
State Department	_____	_____ 26-over	_____ 26-over	_____ 51-60	
Counselor	_____			_____ 61-above	
Teacher	_____				
Librarian	_____				
Parent	_____				
Coach	_____				
Student	_____				
Teacher Aide	_____				
Other	_____				

_____
(Please Specify)

According to your situation and opinion, prioritize the following issues as related to SECOND GENERATION SCHOOL DESEGREGATION CONCERNS:
(1 = most important; 15 = least important)

_____ The Affective Domain in the Desegregated School

_____ School and Classroom Climate

_____ School-Community Relations

_____ Parental Involvement and Volunteerism in Schools

_____ Organization and Operation of the Integrated School

_____ Staff Development in a Changing Environment

_____ Extra Class and Regular Class Activities

_____ Discipline, Suspensions, Expulsions

_____ Recruitment, Hiring, Retention, Promotion of Minority Personnel

_____ Motivational Strategies Affecting Academic Achievement in a Diverse School Population

_____ Proficiency Testing: Implications for Desegregated Schools and Classes

_____ Voluntary Desegregation

_____ Crisis Prevention and Crisis Intervention in Schools

_____ Identifying and Eliminating Racial Stereotyping in Textbooks and Curricular Materials

_____ Enhancing Human Relations

_____ Other (Please Specify)

Comments: